

# Senate File 302 - Introduced

SENATE FILE 302

BY COMMITTEE ON TRANSPORTATION

(SUCCESSOR TO SSB 1128)

## A BILL FOR

1 An Act relating to motor vehicles operated by an automated  
2 driving system, and making penalties applicable.  
3 BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF IOWA:

1     Section 1.   NEW SECTION.   **321.514 Definitions.**

2     As used in this section and sections 321.515 through  
3 321.519, unless the context otherwise requires:

4     1.   *"Automated driving system"* means the hardware and  
5 software collectively capable of performing all dynamic driving  
6 tasks on a sustained basis, regardless of whether the system is  
7 limited to a specific operational design domain, if any.

8     2.   *"Conventional human driver"* means a natural person  
9 who manually controls the in-vehicle accelerating, braking,  
10 steering, and transmission gear selection input devices in  
11 order to operate a motor vehicle.

12    3.   *"Driverless-capable vehicle"* means a system-equipped  
13 vehicle capable of performing all dynamic driving tasks within  
14 the automated driving system's operational design domain, if  
15 any, including but not limited to achievement of a minimal risk  
16 condition without intervention or supervision by a conventional  
17 human driver.

18    4.   *"Dynamic driving task"* means any real-time operational  
19 and tactical function required to operate a motor vehicle on  
20 a highway in traffic within an automated driving system's  
21 specific operational design domain, if any.   *"Dynamic driving  
22 task"* does not include any strategic function such as trip  
23 scheduling or the selection of destinations and waypoints.

24    5.   *"Minimal risk condition"* means a reasonably safe state  
25 to which an automated driving system brings a system-equipped  
26 vehicle upon experiencing a performance-relevant failure of the  
27 system that renders the system unable to perform any dynamic  
28 driving task, including but not limited to bringing the vehicle  
29 to a complete stop and activating the vehicle's hazard lamps.

30    6.   *"On-demand driverless-capable vehicle network"* means a  
31 transportation service network that uses a software application  
32 or other digital means to dispatch driverless-capable vehicles  
33 for the purposes of transporting persons or goods, including  
34 transportation for hire as defined in section 325A.1, and  
35 public transportation.

1     7. "*Operational design domain*" means a set of constraints  
2 used to define the domain under which an automated driving  
3 system is designed to properly operate, including but not  
4 limited to types of highways, speed ranges, environmental  
5 conditions such as weather or time of day, and other  
6 constraints.

7     8. "*System-equipped vehicle*" means a motor vehicle equipped  
8 with an automated driving system.

9     Sec. 2. NEW SECTION.   **321.515 Operation.**

10    1. A driverless-capable vehicle may operate on the public  
11 highways of this state without a conventional human driver  
12 physically present in the vehicle, if the vehicle meets all of  
13 the following conditions:

14    a. The vehicle is capable of achieving a minimal risk  
15 condition if a malfunction of the automated driving system  
16 occurs that renders the system unable to perform any dynamic  
17 driving task within the system's intended operational design  
18 domain, if any.

19    b. While in driverless operation, the vehicle is capable of  
20 operating in compliance with the applicable traffic and motor  
21 vehicle safety laws and regulations of this state that govern  
22 the performance of dynamic driving tasks, unless an exemption  
23 has been granted to the vehicle by the department.

24    c. The vehicle has been certified by the vehicle's  
25 manufacturer to be in compliance with all applicable federal  
26 motor vehicle safety standards, except to the extent an  
27 exemption has been granted for the vehicle under applicable  
28 federal law or by the national highway traffic safety  
29 administration.

30    2. a. The operation of a system-equipped vehicle capable  
31 of performing all dynamic driving tasks within the automated  
32 driving system's operational design domain on the public  
33 highways of this state while a conventional human driver is  
34 present in the vehicle shall be lawful. Such operation is  
35 subject to the provisions of this chapter, including the

1 requirement that the conventional human driver possess a  
2 valid driver's license pursuant to section 321.174. The  
3 conventional human driver shall operate the system-equipped  
4 vehicle according to the manufacturer's requirements and  
5 specifications, and shall regain manual control of the vehicle  
6 when prompted by the automated driving system.

7     **b.** An automated driving system, while engaged, shall be  
8 designed to operate within the system's operational design  
9 domain in compliance with the applicable traffic and motor  
10 vehicle safety laws and regulations of this state that govern  
11 the performance of dynamic driving tasks, unless an exemption  
12 has been granted to the vehicle by the department.

13     **3.** Except as provided in this section, the motor vehicle  
14 laws of this state shall not be construed to require a  
15 conventional human driver to operate a driverless-capable  
16 vehicle that is being operated by an automated driving system.  
17 The automated driving system, while engaged, shall be deemed  
18 to fulfill any physical acts required of a conventional human  
19 driver to perform dynamic driving tasks.

20     **Sec. 3. NEW SECTION. 321.516 Insurance.**

21     Before a system-equipped vehicle is allowed to operate on  
22 the public highways of this state, the owner shall submit to  
23 the department proof of financial liability coverage for the  
24 vehicle in a manner and form determined by the department.

25     **Sec. 4. NEW SECTION. 321.517 Accidents.**

26     In the event of an accident in which a system-equipped  
27 vehicle is involved, the vehicle shall remain at the scene of  
28 the accident and the operation of the vehicle shall otherwise  
29 comply with sections 321.261 through 321.273 where applicable  
30 and to the extent possible, and the vehicle's owner or a person  
31 on behalf of the vehicle's owner shall promptly report the  
32 accident to law enforcement authorities. If a system-equipped  
33 vehicle fails to remain at the scene of an accident or the  
34 operation of the vehicle fails to otherwise comply with  
35 sections 321.261 through 321.273 where applicable and to the

1 extent possible as required by this section, the vehicle's  
2 failure shall be imputed to the vehicle's owner, and the  
3 vehicle's owner may be charged and convicted of a violation of  
4 sections 321.261 through 321.273, as applicable.

5     Sec. 5. NEW SECTION.   **321.518 On-demand driverless-capable**  
6 **vehicle network.**

7     A person may operate an on-demand driverless-capable vehicle  
8 network. An on-demand driverless-capable vehicle network may  
9 be used to facilitate the transportation of persons or goods,  
10 including transportation for hire as defined in section 325A.1,  
11 and public transportation. An on-demand driverless-capable  
12 vehicle network may connect passengers to driverless-capable  
13 vehicles either exclusively or as part of a digital network  
14 that also connects passengers to conventional human drivers  
15 who provide transportation services, consistent with chapter  
16 321N or any other applicable laws, in vehicles that are not  
17 driverless-capable vehicles.

18     Sec. 6. NEW SECTION.   **321.519 Authority.**

19     1. Automated driving systems and system-equipped vehicles  
20 shall be governed exclusively by sections 321.514 through  
21 321.518, and this section. Automated driving systems and  
22 system-equipped vehicles shall be regulated exclusively by the  
23 department in accordance with sections 321.514 through 321.518.

24     2. A political subdivision of the state shall not impose  
25 requirements, including but not limited to performance  
26 standards, specific to the operation of system-equipped  
27 vehicles, automated driving systems, or on-demand  
28 driverless-capable vehicle networks that are in addition to  
29 the requirements set forth under sections 321.514 through  
30 321.518. A political subdivision of the state shall not  
31 impose a tax on system-equipped vehicles, automated driving  
32 systems, or on-demand driverless-capable vehicle networks  
33 where such tax relates specifically to the operation of  
34 system-equipped vehicles, automated driving systems, or  
35 on-demand driverless-capable vehicle networks.

1 EXPLANATION

2 The inclusion of this explanation does not constitute agreement with  
3 the explanation's substance by the members of the general assembly.

4 This bill relates to automated driving systems (ADS).  
5 OPERATION. The bill authorizes a driverless-capable vehicle  
6 to operate on the public highways without a conventional  
7 human driver physically present in the vehicle if the vehicle  
8 meets certain conditions. First, the vehicle must be capable  
9 of achieving a minimal risk condition if a malfunction of  
10 the ADS occurs that renders the ADS unable to perform any  
11 dynamic driving task within the ADS's intended operational  
12 design domain, if any. Second, while in driverless operation,  
13 the vehicle must be capable of operating in compliance with  
14 the applicable traffic and motor vehicle safety laws and  
15 regulations of this state that govern the performance of  
16 dynamic driving tasks, unless an exemption has been granted to  
17 the vehicle by the department of transportation (DOT). Third,  
18 the vehicle must be certified by the vehicle's manufacturer  
19 to be in compliance with all applicable federal motor vehicle  
20 safety standards, except to the extent an exemption has been  
21 granted for the vehicle under applicable federal law or by the  
22 national highway traffic safety administration.

23 The bill provides that the operation of a system-equipped  
24 vehicle capable of performing all dynamic driving tasks within  
25 the ADS's operational design domain on the public highways  
26 while a conventional human driver is present in the vehicle  
27 shall be lawful. Such operation is subject to the provisions  
28 of Code chapter 321, including the requirement that the  
29 conventional human driver possess a valid driver's license.  
30 The conventional human driver must operate the system-equipped  
31 vehicle according to the manufacturer's requirements and  
32 specifications, and must regain manual control of the vehicle  
33 when prompted by the ADS.

34 The bill provides that the motor vehicle laws of this state  
35 shall not be construed to require a conventional human driver

1 to operate a driverless-capable vehicle that is being operated  
2 by an ADS. The ADS, while engaged, is deemed to fulfill  
3 any physical acts required of a conventional human driver to  
4 perform dynamic driving tasks.

5 INSURANCE. The bill requires, before a system-equipped  
6 vehicle is allowed to operate on the public highways, that  
7 the owner submit to the DOT proof of financial liability  
8 coverage for the vehicle in a manner and form determined by the  
9 DOT. Under Code chapter 321, "financial liability coverage"  
10 means an owner's policy of liability insurance in the amounts  
11 specified in Code section 321A.21, a bond filed with the  
12 DOT, a certificate of deposit filed with the DOT, or a valid  
13 certificate of self-insurance issued by the DOT.

14 ACCIDENTS. In the event of an accident in which a  
15 system-equipped vehicle is involved, the bill requires  
16 the vehicle to remain at the scene of the accident and the  
17 operation of the vehicle to otherwise comply with Code sections  
18 321.261 through 321.273 where applicable and to the extent  
19 possible, and the vehicle's owner or a person on behalf  
20 of the vehicle's owner to promptly report the accident to  
21 law enforcement authorities. The bill provides that if a  
22 system-equipped vehicle fails to remain at the scene of an  
23 accident or the operation of the vehicle fails to otherwise  
24 comply with Code sections 321.261 through 321.273 where  
25 applicable and to the extent possible as required by the  
26 bill, the vehicle's failure shall be imputed to the vehicle's  
27 owner, and the vehicle's owner may be charged and convicted  
28 of a violation of Code sections 321.261 through 321.273, as  
29 applicable.

30 NETWORKS. The bill authorizes a person to operate  
31 an on-demand driverless-capable vehicle network. An  
32 on-demand driverless-capable vehicle network may be used to  
33 facilitate the transportation of persons or goods, including  
34 transportation for hire and public transportation. An  
35 on-demand driverless-capable vehicle network may connect

1 passengers to driverless-capable vehicles either exclusively or  
2 as part of a digital network that also connects passengers to  
3 conventional human drivers who provide transportation services  
4 in vehicles that are not driverless-capable vehicles.

5     AUTHORITY. The bill specifies that automated driving  
6 systems and system-equipped vehicles shall be governed  
7 exclusively by the bill and regulated exclusively by the DOT.

8     The bill prohibits a political subdivision of the state  
9 from imposing requirements, including but not limited  
10 to performance standards, specific to the operation of  
11 system-equipped vehicles, ADSs, or on-demand driverless-capable  
12 vehicle networks that are in addition to the requirements  
13 set forth under the bill. The bill also prohibits a  
14 political subdivision of the state from imposing a tax on  
15 system-equipped vehicles, ADSs, or on-demand driverless-capable  
16 vehicle networks where such tax relates specifically to the  
17 operation of system-equipped vehicles, ADSs, or on-demand  
18 driverless-capable vehicle networks.

19     PENALTIES. Under Code section 321.482, it is a simple  
20 misdemeanor for a person to do an act forbidden or to fail  
21 to perform an act required by Code chapter 321, unless a  
22 penalty is otherwise specified by law. A simple misdemeanor is  
23 punishable by confinement for no more than 30 days or a fine of  
24 at least \$65 but not more than \$625 or by both.